REMARKS

Claims 1-42 are pending. Claims 43-54 were withdrawn in light of the Reply to Restriction Requirement filed on April 19, 2006.

Applicants' Claimed Invention

Applicants' claimed invention is directed to methods of preparing injectable microparticle compositions and methods for treating patients by administering injectable microparticle compositions. Practice of the claimed invention provides significant advantages over known methods for forming injectable microparticle compositions. The physical characteristics of microparticles, for example, the morphology, density and size, are dependent upon the steps used in the method of preparation, making control and tailoring of the physical characteristics of the resulting microparticles a difficult (sometimes impossible) and expensive undertaking. *See* Specification at page 2, lines 8-11. The present invention provides for the ability to decouple fabrication of a polymer/drug matrix from subsequent steps that can be used to impart desired physical characteristics to injectable microparticles. *See id.* at page 3, lines 1-3. Thus, the polymer/drug matrix can be provided by any suitable method and microparticle compositions can be prepared through practice of the present invention. *See id.* at page 3, lines 7-8.

Rejection of Claims 1-42 under 35 U.S.C. § 102(b)

The Examiner has rejected Claims 1-42 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,192,741 issued to Orsolini *et al.* on March 9, 1993 (hereinafter, "Orsolini *et al.*"); International Publication No. WO 92/19266 by Kitchell *et al.* published on November 12, 1992 (hereinafter, "WO '266"); and International Publication No. WO 94/07469 by Kitchell *et al.* published on April 14, 1994 (hereinafter, "WO '469").

Neither Orsolini *et al.*, WO '266, nor WO '469 discloses each and every limitation of Claims 1-42, and therefore the claimed invention is not anticipated under 35 U.S.C. § 102(b). *See In re Paulsen*, 30 F.3d 1475, 31 USPQ2d 1671, 1673 (Fed. Cir. 1994) ("[a] rejection for anticipation under section 102 requires that each and every limitation of the claimed invention be disclosed in a single prior art reference.")

Rejection in view of Orsolini *et al.*

The Examiner cites Orsolini *et al.* at col. 1, lines 5-16 and 33-41; col. 1, bottom; and col. 2, lines 1-13.

Orsolini *et al.* discuses preparation of a polymer composition containing a water-insoluble peptide. The process includes the steps of shaping a residue of polymer and water-insoluble peptide into solid particles. The shaping is accomplished by extrusion of the residue and grinding of the extruded residue (*i.e.*, grinding of extruded rods).

Orsolini *et al.* does not teach or suggest the methods of independent Claims 1 and 35. For example, Orsolini *et al.* does not teach or suggest "compressing [a] matrix using confined pressure compaction at ambient temperature, thereby forming a compressed matrix," as stated in Claims 1 and 35 (emphasis added). Instead of confined pressure compaction, Orsolini *et al.* uses extrusion to provide the material in a desired form. *See* Orsolini *et al.* at col. 2, lines 51-54. Orsolini *et al.*'s "extrusion" is not "confined pressure compaction." As the term is used in the present patent application, "confined pressure compaction" refers to compaction of a material using a confined pressure device such as, for example, a device in which internal motion and shear of the polymer/drug matrix is incidental to consolidation of the matrix in a closed mold or between two surfaces. *See* Specification at page 23, lines 12-15. In other words, confined pressure compaction and extrusion are distinct methods of providing a material in a desired form. Extrusion involves forcing a material through an orifice to produce a desired form, *e.g.*, to form the rods of Orsolini *et al.*, while confined pressure compaction produces the desired form by compressing a material using a confined pressure device. Since Orsolini *et al.*'s "extrusion" is not "confined pressure compaction," Claims 1 and 35, and claims dependent thereupon, are novel over Orsolini *et al.*

As a further distinction, Orsolini *et al.* does not teach compressing a matrix at ambient temperature, as in Claims 1 and 35. As described *supra*, Orsolini *et al.* discloses extrusion, not confined pressure compaction. Orsolini *et al.* contains only one working example using extrusion and in that example a film is extruded through an orifice at 70°C. *See* Orsolini *et al.* at col. 2, lines 51-54. The extrusion described by Orsolini *et al.* is not performed at ambient temperature.

Orsolini *et al.* also does not teach or suggest the method of Claim 17. For example, Orsolini *et al.* does not teach or suggest "forming droplets of [a] mixture," "freezing the droplets, thereby forming frozen droplets," or "extracting [a] polymer solvent from... frozen droplets into a non-solvent, thereby forming a polymer/biologically active agent matrix," as stated in Claim 17.

Orsolini *et al.* does not teach each and every limitation of independent Claims 1, 17, and 35. Therefore, those claims and Claims 2-16, 18-34, and 36-42, dependent thereupon, are novel in light of Orsolini *et al.*

Rejections in view of WO '266

The Examiner cites WO '266 at Example 1, pages 30-31.

WO '266 also does not teach or suggest the methods of independent Claims 1 and 35. For example, WO '266 does not teach or suggest "compressing [a] matrix using confined pressure compaction at ambient temperature, thereby forming a compressed matrix," as stated in Claims 1 and 35 (emphasis added). Instead of using confined pressure compaction, WO '266 describes a compression step "utilizing heat and hydraulic pressure" wherein a film is "extruded into rods with a Pasadena Hydraulic Press at about 70°C." (emphasis added) *See* WO '266 at page 31, lines 7-11. As described *supra*, confined pressure compaction and extrusion are distinct methods of providing a material in a desired form. The method of WO '266 does not use confined pressure compaction nor is the method performed at ambient temperature.

WO '266 also does not teach or suggest the method of independent Claim 17. WO '266 does not teach or suggest any method that involves forming droplets of a mixture as in Claim 17. For example, WO '266 does not teach or suggest "forming droplets of [a] mixture," "freezing the droplets, thereby forming frozen droplets," or "extracting [a] polymer solvent from... frozen droplets into a non-solvent, thereby forming a polymer/biologically active agent matrix," as stated in Claim 17.

Since WO '266 does not teach each and every limitation of independent Claims 1, 17, and 35, those claims and Claims 2-16, 18-34, and 36-42, dependent thereupon, are novel in light of WO '266.

Rejections in view of WO '469

The Examiner cites WO '469 at pages 11, 12, 16, and Example 7 at pages 22-23.

Like WO '266, WO '469 does not teach or suggest the methods of independent Claims 1 and 35. For example, WO '469 does not teach or suggest "compressing [a] matrix using confined pressure compaction at ambient temperature, thereby forming a compressed matrix," as stated in Claims 1 and 35 (emphasis added).

While WO '469 states at page 16 that a casting can be "extruded or molded into the desired form, e.g., beads or rods which can be further processed into powder by grinding," WO '469 does not teach or suggest "compressing the matrix using confined pressure compaction" as described in Claims 1 and 35. As discussed *supra*, "extrusion" is not "confined pressure compaction." Further, WO '469's use of the term "molded," without any further explanation or exemplification, is not a sufficient teaching of the specific confined pressure compaction (*i.e.*, compaction of a material using a confined pressure device) recited in Applicant's Claims 1 and 35. In fact, all of the working examples of WO '469 all use extrusion, not confined pressure compaction, to provide the polymer film castings in a desired form.

WO '469 also does not teach or suggest the method of Claim 17. WO '469 does not teach or suggest any method that involves forming droplets of a mixture as in Claim 17. For example, WO '469 does not teach or suggest "forming droplets of [a] mixture," "freezing the droplets, thereby forming frozen droplets," or "extracting [a] polymer solvent from... frozen droplets into a non-solvent, thereby forming a polymer/biologically active agent matrix," as stated in Claim 17.

WO '469 does not teach each and every limitation of independent Claims 1, 17, and 35. Therefore, Claims 1, 17, and 35 and Claims 2-16, 18-34, and 36-42, dependent thereupon, are novel in light of WO '469.

Comments on Dependent Claims

As described *supra*, since independent Claims 1, 17, and 35 are novel in light of the cited references, dependent Claims 2-16, 18-34, and 36-42 are also novel in light of the cited references. Applicants respectfully submit that several of the originally filed dependent claims are also novel over the cited references for additional, independent reasons.

For example, none of the cited references teaches or suggests fragmenting a polymer/agent matrix prior to compressing the polymer/agent matrix as stated in dependent Claims 4 and 38. None of the cited references teach or suggest compressing a polymer/agent matrix using a press and die apparatus as in Claim 11. None of the cited references teach or suggest methods wherein the biologically active agent is an antipsychotic drug; wherein the biologically active agent is selected from the group consisting of aripiprazole, olanzapine and risperidone; wherein a patient suffers from an affective disorder; or wherein the patient suffers from a condition selected from the group consisting of schizophrenia, depression, and anxiety, as in Claims 39, 40, 41 and 42, respectively.

CONCLUSION

In view of the above remarks, it is believed that all claims are in condition for allowance, and it is respectfully requested that the application be passed to issue. If the Examiner believes that a telephone conference would expedite prosecution of this case, the Examiner is invited to call the undersigned.

Respectfully submitted,

HAMILTON, BROOK, SMITH & REYNOLDS, P.C.

By 

Colin C. Durham
Registration No. 52,843
Telephone: (978) 341-0036
Facsimile: (978) 341-0136

Concord, MA 01742-9133
Dated: December 19, 2006

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